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POLITICAL SCIENCE QUARTERLY.

THE GOLD STANDARD OF CURRENCY IN THE LIGHT OF RECENT THEORY.

WHAT kind of currency this country is to have is, in the main, to be decided by the people. Among the influences that are shaping the popular verdict on this point there are two delusions and a number of imperfect theories. One delusion concerns the relation of money to the rate of interest. Many persons still think that low interest is to be secured by inflating the currency, instead of by slowly accumulating real capital. This is a point on which theory is already clear and convincing. A dissemination of truth would be useful, but new discoveries are not necessary. Such is not the case, however, in respect to the imperfect theories above referred to. Here science is not ripe for mere dissemination. Thinkers disagree on certain points; and one of these is the question: To what standard of value ought currency to conform, in order to do exact justice to debtor and creditor? The science of value ought at least to tell us how justice in this relation is to be done.

Injustice can come in one of two ways: the contract of payment may be violated, or into the making of the contract itself there may enter some element of unfairness. A man may not do what he has promised to do, or he may in some way have been induced to make a promise the keeping of which would injure him. It is conceivable that he may have made an injurious promise because he is personally ignorant, and his creditor may have taken an advantage of him. On the other

hand, events may have occurred since the contract was made that were not foreseen by either party in the transaction, and these may have the effect of making the fulfillment of the contract unexpectedly difficult. The price of wheat, in terms of gold, may be low ; and it may be hard for a wheat-grower to fulfill a gold-paying contract.

This is not saying that it is unjust to make him fulfill it. It begs a far-reaching question to assert that a debtor ought not to be made to meet unforeseen hardships. The easy identification of hardship imposed on debtors by events with wrong inflicted on them by creditors, is one of the features of the present situation. If under such circumstances the collection of debt means a wrong, it is the law that is held responsible for it ; and an effort to change the legal terms of payment will be made. As the law now only exacts the literal fulfillment of a promise, a change in the terms of the law can relieve the debtor only by excusing him from such a fulfillment. The plan would be to introduce the literal wrong of allowing promises to be violated, in order to remedy a supposed virtual wrong involved in enforcing the contract under changed conditions. If gold has become dear, substitute a lighter dollar than the one referred to in the contract, or a dollar made of a different metal ! One can see in a moment how this would work.

To make the legal dollar heavier or lighter than that which the debtor has received and has promised to pay, or to coin it from a different metal, is to violate both the letter and the spirit of a myriad of contracts. If it corrects the unequal — we do not say unjust — action of some contracts of long standing, it introduces clear injustice into the fulfillment of many times more numerous contracts which are of recent date. Morally as well as otherwise it is a costly way to correct the dealings of evolutionary fate or of Providence. Monetary contracts in force to-day were largely made yesterday. The overwhelming majority of them were made within the year just completed. Some, such as are embodied in bonds of governments and of corporations and in mortgage notes, date from remoter periods in the past. Let it be supposed that within ten years the

purchasing power of the gold dollar has gained ten per cent in terms of agricultural labor, shall we take a tenth from the weight of the coin, in order to correct existing contracts and make them conform to a fair standard? If the appreciation of gold has been uniform through the ten years, it requires only a little arithmetic to show that on all the vast majority of contracts still pending, — those, namely, that have been made within the latter half of the period, — we shall create more inequality than we remedy. In the case of all that have been made within a year we directly rob one party to the contract, and give the proceeds to the other. The contracts made in the immediate past have been made in terms of a dollar of a known labor value, and one that, on every ground, ought to be paid in terms of the same unit. The wrong and the practical harm that have resulted from changing the metallic weight or quality of the coins that are the bases of contracts are too apparent to need argument.

The second possibility of evil which we noticed comes from a matching of ignorance against knowledge in the making of contracts for future payments. The coin which the debtor receives and agrees to repay may be foreordained to increase in purchasing power. One party, say the creditor, may know this, and the debtor may not. Ignorantly the debtor may take upon himself the obligation to pay the equivalent of more units of labor than he gets when the loan is made. Beyond simple interest he ignorantly promises to pay a bonus on his loan. If he pays a nominal rate of five per cent in interest, he may pay a real rate of six. At the expiration of the time covered by the loan he will have to pay, in effect, more labor than he received. For money wherewith to satisfy his creditor he must work more than the creditor worked, or caused other men to work, in order to get the money with which the loan was made. He may have to pay, in short, more of real wealth than he received.

Now it is clear that, if such a result is foreseen, it can be corrected by varying the nominal rate of interest. Under the assumed conditions, the loan of real capital should be

repaid, at the end of ten years, by an equal amount of real capital and fifty per cent more in the way of total interest. This would afford a real interest of five per cent per annum. If money gains in purchasing power at the rate of one per cent per annum, or ten per cent in ten years, then nearly one per cent can be deducted from the nominal rate of interest promised in the note without reducing the true rate of interest on the loan of true capital below five per cent. By repaying at the end of the time the original sum of money loaned, and by paying at intervals through the period a sum aggregating forty per cent in the way of interest, the debtor really pays fifty per cent, because the principal of the loan, at the time of repayment, represents ten per cent more in real wealth than it did when the loan was contracted. Would an ignorant debtor be able to take advantage of this fact? Would he reduce the nominal interest that he agrees to pay, so as to make the real interest correspond with the earnings of capital?

If the transactions between a debtor and a creditor were made in isolation, and without influence from a general loan market, the one who best foresaw the future might be able to take advantage of the other. This, however, is a nearly impossible case. In a single transaction with one borrower, a lender of capital must usually content himself with about the rate that he could get for it in the general market; and the borrower, however ignorant of the future he may be, is only obliged to know about how much he would have to pay in the same general market. The prevalent rate of interest on loans dominates individual transactions. In the general market it is impossible that knowledge of the future should be very unevenly distributed. Lenders, as a body, know as much as borrowers, and not more. If the rate secured on loans of money corresponds to the earning capacity of real capital, as by any clear theory it should do, then the variations in the purchasing power of money are unerringly corrected through the nominal rate of interest.

That such a correction is actually made when changes in the purchasing power of money are generally foreseen, admits

of little doubt. In the course of one of the ablest speeches recently made in the Senate in behalf of the free coinage of silver, the speaker was asked how he knew that gold had appreciated in value. He replied, that he wanted no better proof than the low rate of interest prevailing. "Men do not," said he, "agree to pay a large percentage when the money in which the repayment of the principal must be made is becoming more and more costly." It was a naïve confession that a debtor does not suffer nor a creditor gain by a change in the purchasing power of coin, provided that the change is generally anticipated. There may be aberrations in the working of this law, as there are in the case of other laws of economics; that on a large scale it does work is not doubtful.

Unforeseen changes remain to be provided for. If gold be the basis of currency, the mining of it may be quickened or retarded in ways that the market cannot anticipate, and therefore cannot discount. The volume of business and the demand for money may change. It follows that any metallic currency may deviate somewhat from a perfectly ideal currency. Unforeseen variations do not introduce any element of fraud into the making and paying of debts. They introduce a residuum of uncertainty into contracts that cover long intervals of time. One party is liable to gain somewhat at the cost of the other. Suggestions have been made for the removal of this residue of inequality. A multiple standard has been proposed whereby the unit of payment should consist in a variable amount of metal, with a fixed amount of "commodity." As much gold as may be worth a pound of tea, a pound of wool, a bushel of wheat, *etc.*, would be the unit of loans and payments. It is worth while to determine whether this is the right theoretical standard of payments, though not mainly for the sake of ever using it in practice. The chief thing to be gained is a knowledge of what is the true standard, and a power of determining how far any metallic standard deviates from it.

We have to remember that the only real motive for using any multiple standard is to correct inequalities that are not now corrected by means of the nominal rate of interest. These

are only such inequalities as are not foreseen by the business world. A slow, steady and calculable advance or decline in the commodity value of metallic money would do no serious harm. A rapid, irregular or incalculable variation in the purchasing power of it would do harm. We can form an idea of the extent of this liability to evil by a study of the true theoretical standard of deferred payments. What is that standard? This point may seem to lie in the region of pure theory. In reality it is the point of largest practical consequence. If we can settle the question involved, we shall be in a position to know whether a currency based on gold is or is not the best that we can practically get.

There is an ideal standard to which it is best that the value of money, metallic or other, should conform. The social change that affects in a most important way the payment of debts is the transition from a time of prosperity to one of depression. Incur a debt when industry is very productive, and pay it when industry produces only a little, and you suffer a hardship. The creditor has loaned something that he procured with comparative ease ; and you pay what you get with difficulty. There are cyclical changes in business that bring this alteration, on the average, about once in a decade. With some irregularities and secondary movements, the crisis, following the "boom" that is the cause of it, comes about once in ten years. It is of the greatest importance to note, what a full study of these movements would reveal, that the prosperity of the one period and the adversity of the other are not due respectively to healthy and to unhealthy social conditions. It is the boom that deranges society ; and the chief phenomena of the following crisis constitute a remedial operation. The productive forces are misadjusted during the boom, and are readjusted, in a painful way, during the period of depression.

The *sensation* of social derangement comes when the forces of industry are recovering their normal position and action. The nature of each process can be fairly well analyzed. There ought to be little doubt as to what it is in the over-stimulated industry that constitutes a derangement of the organs of social

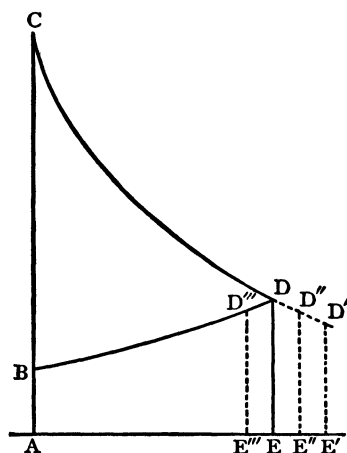
production, and what it is in the suffering time that follows that really restores health, or a natural adjustment of social organs and functions. It ought to be possible to look at the practical world with enough of scientific discernment to see the element of disease in the feverish activity of the boom, and the element of recuperation amid the waste and suffering of the panic. By the signs of the times the coming of either period ought to be measurably anticipated, and in monetary transactions it ought to be in a certain degree discounted. The periodicity of panics is a help. While quite accurate forecasts are not to be expected, it would be an undiscerning view which should not give to the business world the credit of anticipating this cyclical movement to a certain extent, and of taking some account of it in those general transactions by which the rate of interest is gauged.

This cyclical movement of business is of much importance in connection with what is termed the "elasticity" of a circulating medium ; but it is of minor consequence in connection with the question of the ideal standard of value, to which the coin that is the basis of a currency ought to conform. It is the secular change in social prosperity that is here important. Measure the productive power of the world at intervals fifty years apart, and you discover each time an appreciable advance. There is a chance that even this change may, in a considerable degree, be anticipated and discounted in monetary transactions. Yet an ideal currency would be one that will work fairly, as between debtor and creditor, in case the gain in productive power is not taken into full account in adjusting the rate of interest.

There is no question of fraud here to be raised. A debtor may gain and a creditor may lose, and *vice versa*, by the terms of a perfectly just contract ; and it would be a pernicious principle that should seek to remove such an inequality by tampering with the currency, and so impairing the validity of the contract. It is, however, precisely because a popular impulse to resort to this perilous expedient again and again appears, that it is in a high degree desirable to have such a currency

that secular changes may affect debtor and creditor alike. If the world becomes more prosperous while the loan is running, let them share alike in the gain. When debt-scaling movements lose their theoretical backing, they become impotent. The argument that proves to a debtor's satisfaction that the literal payment of his debt will virtually rob him, is what raises the defaulting policy to a moral level at which it can win votes.

At this test point theory ought to be clear. When a man makes over money to another, he does for him a service that has a positive and a negative side. First, he enables the receiver of the money to get commodities; secondly, he enables him to avoid labor. The receiver of the money may take the benefit in either form. If he gets a hundred dollars, and if wages are a dollar a day, he may work as much as he formerly did, and have a hundred dollars' worth of extra commodities for consumption. In this case, he takes the benefit in a positive form. If, however, he prefers to content himself with the amount of goods that he formerly consumed, he can take a hundred holidays or two hundred half-holidays. In any case, the benefit that he gets resolves itself into a release from a certain amount of work. It is a real gain, computed in a negative way. In practice, he will take the benefit partly in one way and partly in the other.



Resorting to a graphic expression, we may let the hours of labor in a day be measured on the line A E. There are ten hours in a working day, and a man gets a dime for each of them. The sacrifice involved in the different hours is not uniform. Fatigue increases toward the close of the day, and confinement is then more severely felt. We will measure the sacrifice incurred in different parts of the day by vertical distance from the line A E. At the beginning of the day it is A B, and at the end it is E D. Through the day the sacrifice involved in labor ascends along the curve B D.

Now the personal gains that come from spending the dimes as they are earned, diminish as there are more and more of them to be spent. With the first dime the man buys food worth to him the amount expressed by A C. With the next dime he buys what is by one point less important; and with the last he buys what in his scale figures as a luxury. It is something that to him has an importance expressed by E D. This last purchase barely pays for the personal cost of securing it. This same line, E D, measures the sacrifice entailed by earning the money by means of which the final commodity was bought. It is a coincident measure of final gain and final sacrifice.

If industry were to become more productive, and if labor were to share in the prosperity in full measure, what would the man do? Would he still work through ten hours, and pocket his increased earnings? That would be a bad policy. With the earnings of ten hours of labor he can get more commodities than before, but they must have a reduced utility. The last thing bought is now worth E' D', while the money that buys it cost E D. In order that the final sacrifice entailed by a day's labor may not more than offset the gain secured by means of it, the day must be somewhat shortened. If an hour be taken from the length of the day, the final cost of the labor will be E''' D'''. The final utility of goods secured will be E'' D''; and these two lines are equal. The final sacrifice equals the final gain.

Theoretical as this statement may seem, it expresses one of the most dominant facts in industrial life. There is no risk in

asserting that the principle thus stated works in practice. As the earnings of labor increase in terms of commodities, the duration of the working day is shortened. It tends to conform in length to the rule of equal final gain and final sacrifice.

What relation has this fact to the question of currency? A decisive one. If a unit of currency conforms to the amount of commodity secured by a *day* of labor, it will be an ideally right one; for it will divide equally between debtor and creditor the gains that come through industrial progress. Such an ideal dollar, if we use the American unit as the test, would buy a continually increasing amount of general commodities, and it would buy a decreasing number of *hours* of labor. If the number of hours of labor put into each day were quite normal, the ideal unit of currency would, as already stated, command an unvarying fraction of an average day of labor. If a thousand dollars loaned in 1800 cost a thousand days of labor, the same amount, as repaid in 1850, would cost the same number. Labor that diminishes in actual amount, as measured in hours, and that diminishes in sacrifice entailed, — this affords a standard of payment by which debtor and creditor may share alike in the benefits of progress.

It will be labor that increases in power to produce goods. If the creditor, in making the loan, gave to the debtor the power to get a hundred commodities, representing a hundred hours of labor; and if the debtor at the end of fifty years pays to his creditor money that will buy a hundred and ten similar commodities, but was earned by ninety hours of labor: the gains from progress are shared in a way that is practically even. The arithmetic of the case is simple; but let us make sure of it. The debtor has paid more commodities than he received. An excess of positive benefit has come to the creditor. The debtor has worked for the creditor less than, at the time when the loan was made, the creditor, or some one controlled by him, worked for the debtor. An equivalent gain, as negatively computed, thus comes to the debtor. Moreover, it is possible for either party to transmute a negative gain into a positive one, and *vice versa*. The debtor may, if he will, work a hundred

hours instead of ninety. In that case he will be able to pay his debt and keep for his own use the commodities produced in the extra period of ten hours. Again the creditor, on receiving the hundred and ten units of commodity, may consume only as many as it was his former custom to consume. Having ten extra units in his hands, he may elect to work for about eighty hours in a given period instead of ninety. His positive gain will then have been translated into a relief from work.

What will be done in fact by both parties is to take the gain partly in one form and partly in the other. If there were ten hours in a working day when this loan was made, and nine when it was paid, then the work of ten days performed by the creditor for the debtor should be paid by the work of ten days performed by the debtor for the creditor. In general, the ideal unit of deferred payments is one that, as the productive power of labor increases, represents more and more commodities and fewer and fewer hours of labor. If the duration of a working day be reduced in a natural way, this unit represents a constant nominal amount of labor, as estimated by the day.

Now if a government were to resort to the same process that is involved in the theoretical multiple standard, — the process, namely, of varying at short intervals the bullion weight of the unit of currency, — any metal or other material might in some sort be made to serve the purpose of debt-paying. The debtor promises to pay a fixed number of dollars consisting of some specified material. It might be gold, silver, copper, tobacco or wampum; if the amount that by law should constitute a dollar were at all times made to be that amount which, in the actual market, would buy a day of labor of average quality, the contract would be enforced, and the parties would be secured against unequal treatment by social destiny. Yet it is clear that a metal that should require little of such correcting would be better than one which should require much of it; and if, by happy chance, any one metal conformed approximately in its bullion value to the value of the changing labor day, it would be out of the question to think of instituting the system of varying the weight of bullion used as the unit of payment.

Has gold, for the last fifty years, had in the world at large a fairly uniform power to buy average days of labor? Has the average day of labor grown shorter? Has it come to command more commodities than it earned at the beginning of the half-century? If statistics answer these questions affirmatively, they establish the claims of gold as a standard of currency during a period of very great disturbance. If lesser disturbances are to be expected hereafter, the claims of this metal are to that extent greater. It would furnish a poor standard if an ounce of it could purchase to-day no more commodities than it could have bought fifty years ago. It would be a defective standard if an ounce of it to-day paid for as many hours of labor as it paid for in 1845. It is the best standard that practically can be had if an ounce of it commands, with minor variations, about as many average days of labor as it did at the beginning of the period.¹

The standard that we have attained is, then, an ideal one, in the sense that it most effectually precludes inequality of treatment of debtor and creditor when contracts are literally enforced. A labor day of enlarged power to produce, and of diminished power to inflict sacrifice, constitutes this standard. If the metallic unit of money were kept in constant agreement with this standard, the necessity for forecasting the future condition of business and adjusting the interest on loans to that future condition, would in a large degree be removed. If we used as money treasury notes calling for "dollars"; if we re-

¹ In a brief statement like this, practical variations from theoretical law must as a rule be left unstudied. One, however, must at least be noticed. In the course of fifty years a change in social psychology may take place, partly in consequence of industrial gains. This may lead men to prefer gains that come in the positive form, rather than those that consist in a relief from labor. There may be an increased ardor for accumulation, and men may prefer to work long and acquire capital, rather than to shorten their labors as much as the principle above cited would require. Moreover, their consumption may become more and more varied, and the effects discussed by Professor Patten in his *Theory of Dynamic Economics* may ensue. This tends to make men prefer to take gains from industrial progress rather in the form of increasing goods than in that of diminishing labor. In so far as this disturbing influence modifies the law before stated it causes the ideal standard of deferred payments to represent slightly less than the labor day practically adopted.

deemed these notes on presentation in gold; and if we made the amount of gold paid for them so to change from time to time that on any particular day it would actually secure a fixed fraction of an average day's labor, — there would be no need of varying the rates of interest so as to counteract the effect of changes in the purchasing power of money. The need of such forecasts and such adjustments of rates of interest arises only because the dollar is of a fixed weight and may vary from the ideal standard.

The dollar of variable weight suggested in the above illustration *would conform to that standard of value from which the variations of value of a dollar of fixed weight ought to be calculated.* In the main it is the standard from which, as I think, the variations actually are calculated, not so much when the value of money is discussed as when interest is computed. Unconsciously and in computations in which personal gains are at stake, we use the right standard for computing the variations in the purchasing power of money. These variations, which call for forecasts wherever rates of interest are to be fixed for long periods of time, are capable of being largely neutralized by such forecasts. The evil that can come from the fact that a gold dollar has a fixed weight is reduced to very small dimensions. Within any but a very long period it conforms closely to the ideal standard. The variations that occur in such a long period are largely counteracted through adjustments of the rate of interest. An uncorrected remainder of a small variation remains.

Opinions will vary as to the degree in which the length of the actual working day differs from that of the theoretical day, which, if the foregoing deductions are correct, furnishes an ideal standard for money. Views will vary as to the extent to which the gold dollar has lost in its power to purchase hours of labor. If we think that ideally it ought to lose in its power to buy hours of labor as much as it gains in its power to buy commodities, we shall unite in thinking that its actual behavior has varied comparatively little from the ideal requirements. In any case it has gained where it should have gained, — in

its power to buy commodities measured in kind; and it has lost where it should have lost, — in its power to buy average labor, measured by the hour. How nearly in quantity the loss offsets the gain, is an unsettled question.

There is an influence at work that, in the immediate future, may throw into the background the question of the true bullion weight of metallic money. It is the question of the volume of general currency. Here a second delusion has an unhappy effect. It is more widespread than the former delusion, which concerns the relation of the volume of currency to the rate of interest. This concerns the relation of the volume of currency to permanent prosperity. An easy acceptance is given to the thesis that rising prices always mean prosperity. They do indeed attend that movement of recovery that follows a business crisis. The crash wrecks prices in many directions, and the resumption of business restores them. The boom that follows the natural restoration and that precedes the next crisis raises prices abnormally. On the whole, the western world is committed to the "booming" policy, or to that course which exaggerates both the feverish activity that simulates prosperity but really means disease, and the collapse that opens the way to health.

If a currency is to vary from the ideal one in volume, as well as in the bullion value of the coin on which it is based, in which direction should the variation be? Is it better to use the currency as a means of slightly raising prices, or is it preferable slightly to depress them? Is not the answer furnished by determining whether the oscillating movement of business is a good or an evil? Changes in the volume of currency may increase or diminish these oscillations. There is much to be said in favor of "elasticity" in currency, provided that it stretches in times of panic and contracts at the time when society is preparing the way for the panic by speculative activities. Shall the pulse be quickened at the critical moment when the fever is beginning? When commodities of all sorts are bought, not to be used by consumers, but to be held and sold for a profit, then the actual derangement of the social

organism occurs. The currency that inflates at that point renders inevitable the panic, in which even a good currency betakes itself to holes in the earth. Such a rhythmical inflation of currency is the worst of all inflations.

The steady enlargement of metallic money is less perilous ; but, in the long run, we shall and must learn to value steadiness of commercial movement above all other things that can be attained by means of currency. It will be at the beginning of the boom that we shall learn to deal with the panic. Even the steady enlargement of the currency, if it be out of proportion to the increasing volume of business, favors speculation and the wasteful alternations of business conditions to which the world is unhappily accustomed. One might shrink from contracting the currency in order to prevent commercial fevers ; but if nature slightly contracts it, she will do us a kindness that is not even veiled. It is well that the variations of the value of money from the ideal standard should be as small as is possible. It is well that such variations as occur should not make hard times harder, by aggravating the disease that lurks under apparent prosperity.

JOHN B. CLARK.

COLUMBIA COLLEGE.